

ADF manufacturing speeds up delivery time

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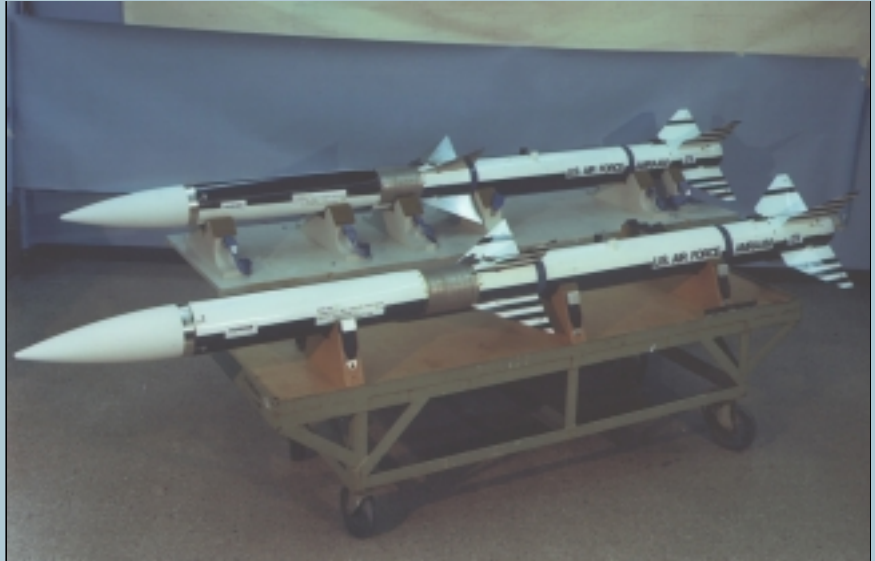
— The missile age began in the 1940s when Germany began to drop these powerful weapons on their adversaries. Since then, the fate of this widely used weapon has depended on how quickly it can reach a target. However, it also depends on how quickly the manufacturer can get the missile to the warfighter.

“The recent conflict in Kosovo pointed out very clearly the importance of getting missiles to the warfighter in a timely manner,” said Brench Boden, project manager of the advanced modular factory contract.

To meet the demand for these war-fighting tools, Raytheon Missile Systems and the Materials and Manufacturing directorate have created advanced methods of moving these products from the manufacturer to the consumer.

Researchers demonstrated an advanced modular factory, or AMF, approach to manufacturing by identifying high-payoff changes at production facilities and effectively demonstrating world-class quality manufacturing. These changes resulted in reduced inventory, cycle time, material handling and warranty costs, and generated a 40 percent reduction in the time required to fill orders for the advanced medium range air-to-air missile.

Using the new approach, engineers at RMS and the directorate were able to: establish models and simulations that allow a concise understanding and evaluation of the flow process; reduce set-up times; implement process owner inspections throughout the value chain; strive for single-piece flow; minimize the space used and distance traveled by



DROPPING BOMBS ON HIGH ORDER FULFILLMENT TIME — Raytheon, under contract to the Materials and Manufacturing directorate, has successfully demonstrated cost-effective ways for improving tactical missile delivery programs by targeting specific production facilities and identifying high-payoff changes. This has significantly reduced the order fulfillment time for air-to-air missiles.

personnel and material; and synchronize production and delivery in the value chain.

The research team also eliminated critical path waste, lead time, internal/external cycle times and inventory levels. They increased inventory turns, quality and financial performance.

RMS also developed a technology transfer methodology to help other organizations use AMF and lean improvement processes and metrics.

Continuing efforts in this area could lead to substantial savings for the Air Force and more rapid delivery times for other missile programs. @